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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,983	08/21/2003	Clifford Hannel	I004-P03079US	1148

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EXAMINER	
BENOIT, ESTHER	

ART UNIT	PAPER NUMBER
2453	

NOTIFICATION DATE	DELIVERY MODE
02/17/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@socalip.com

Office Action Summary	Application No.	Applicant(s)	
	10/646,983	HANNEL ET AL.	
	Examiner	Art Unit	
	ESTHER BENOIT	2453	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 January 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-21,23-35 and 37-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-21,23-35 and 37-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Action is in response to an Amendment filed on January 13, 2011. Claims 1, 10-11, 14-15, 18, 21, 23-24, 26-27, 29, 32, 35, 39, 41-42, and 45 have been amended. Claims 5, 22, and 36 have been cancelled. Claims 1-4, 6-21, 23-35, and 37-45 are pending in this application.

Response to Arguments

2. Applicant's arguments, filed 1/13/2011, have been fully considered but they are not persuasive. The applicants are arguing in substance the following:

***Arguments to Claims 1, 15, 21, 27, and 35*:**

a) The prior art Gerrevink does not disclose "engaging in stateful TCP connections with the system under test concurrently with the step of simulating the realistic mix of network traffic on the communications network".

b) The prior art Gerrevink does not disclose "measuring performance of the system under test for stateful TCP connections under load of simulated network traffic from the device".

Response to arguments of Claim 1:

As to point a: The argument has been considered but is not persuasive. In paragraphs [0037] and [0062], the traffic stream generator generates and releases TCP packets to the equipment under test. Gerrevink discloses sending TCP packets to the equipment under test during a traffic stream. Although Gerrevink does not use the term

"transaction", these TCP packets are being transferred between the traffic stream generator and a router (equipment under test) to simulate live Internet traffic. TCP connections (*to send TCP packets*) are known to maintain status information for packet transmission, and thus, allowing for a stateful connection.

As to point b: The argument has been considered but is not persuasive. In paragraphs [0075] and [0078], Gerrevink discloses real-time measurements are taken when simulating a packet mix on a system under test. The performance of the system is tested, wherein the packets may be TCP packets, as mentioned in [0062].

***Arguments to Claim 27*:**

a) The prior art Gerrevink, in view of Beanland does not disclose “receiving packets or sending packets in response to a received packet, because Beanland does not engage in TCP connections”.

Response to arguments of Claim 27:

As to point a: The argument has been considered but is not persuasive. Gerrevink discloses sending TCP packets to the equipment under test during a traffic stream as mentioned above. Gerrevink does not explicitly teach reception of response packets to the sent data packets, however, Beanland discloses a traffic stream emulator that performs handshaking to test the performance of an equipment under test. The combination of the two references, makes obvious that a similar handshaking method can be used for the invention of Gerrevink, to also test the load of response packets received for the packets sent to a system under test.

As to any claims not specifically discussed, the applicants argued that it was patentable for one of the reasons discussed above. Please see response to above arguments for unspecified discussions.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 6-21, 23-26, 35, and 37-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Gerrevink et al. (US 2003/0012141 A1).

With respect to claim 1, Gerrevink discloses:

- coupling a device to the communications network, the device comprising a chassis and one or more adapter cards, the adapter cards comprising hardware and software ([0031] and [0035], *traffic stream generator*)
- the device setting up for simulation of a realistic mix of network traffic on the communications network ([0031] and [0035], *simulating a traffic mix*)

- the device simulating the realistic mix of network traffic on the communications network ([0031] and [0035], *simulating a traffic mix*)

- the device setting up for engaging in stateful TCP connections with the system under test ([0037] and [0067], *traffic stream generator for simulating realistic network traffic*)

- the device engaging in stateful TCP connections with the system under test concurrently with the step of simulating the realistic mix of network traffic on the communications network ([0037] and [0067], *simulating realistic network traffic*)

- the device measuring performance of the system under test for the stateful TCP connections under load of the simulated network traffic from the device ([0037], [0067], and [0075], *making real-time measurements*)

With respect to independent claims 15 and 21 the limitations of these claims are similar to the limitations of claim 1. Therefore, claims 15 and 21 are rejected for the same reasons as claim 1 above. Please see rejection above.

With respect to claim 35, Gerrevink discloses simulating real-world network traffic on the communications network generating stateful TCP connections across the communications network with the system under test measuring performance metrics of the system under test in supporting the stateful TCP connections in the presence of the

simulated real-world network traffic ([0037], [0067], and [0075], *making real-time measurements*).

changing quantity and quality of the simulated real-world network traffic ([0037], [0067], and [0075], *performing simulation will inherently modify the network traffic by increasing or decreasing traffic load in network*)

wherein the steps of simulating, generating and measuring are performed concurrently ([0037], [0067], and [0075], *simulating realistic network traffic and generating different traffic classes* to make *real-time measurements*)

With respect to claim 2, Gerrevink discloses the system under test comprises an application, the application operative on a server, the application for providing user-level interaction with plural client computers on the communications network the providing step comprises providing the server and the application operative thereon ([0031] and [0035])

With respect to claim 3, Gerrevink discloses the system under test comprises a server load balancer ([0077])

With respect to claim 4, Gerrevink discloses the system under test comprises a stateful network communications device (Figure 1)

With respect to claim 6, Gerrevink discloses the simulated network traffic is generated by a stateless packet processor (Figure 1)

With respect to claims 7 and 38, Gerrevink discloses the system under test comprises a stateful application which uses underlying services of TCP ([0031])

With respect to claims 8 and 39, Gerrevink discloses the system under test comprises an HTTP server ([0078])

With respect to claims 9 and 40, Gerrevink discloses the system under test comprises an FTP server ([0078])

With respect to claims 10 and 41, Gerrevink discloses modifying a behavior of the network traffic simulated by the device continuing to engage in stateful TCP connections with the system under test continuing to measure performance of the system under test for the stateful TCP connections ([0037], [0067], and [0075])

With respect to claim 17, Gerrevink discloses hardware and software for modifying a behavior of the simulated network traffic (Figure 3, ***350***)

With respect to claims 11, 18, 24, and 42, Gerrevink discloses using performance metrics based on the stateful TCP connections to modify the behavior of the simulated network traffic to more closely simulate a realistic mix of network traffic ([0031])

With respect to claims 12, 19, 25, and 43, Gerrevink discloses the performance metrics are selected from the group consisting of retransmission rate, fragmentation, packet sizes, and drop/reset rates ([0018])

With respect to claims 13 and 44, Gerrevink discloses a user using a control program to change the behavior of the simulated network traffic via a system interface ([0031], [0067], and [0075])

With respect to claims 14 and 45, Gerrevink discloses the user managing multiple ports in a coordinated fashion ([0031], [0067], and [0075])

With respect to claim 16, Gerrevink discloses the adapter cards include a stateless packet processor for simulating the realistic mix of network traffic on the communications network (Figure 1)

With respect to claims 20 and 26, Gerrevink discloses hardware and software for changing a behavior of the simulated network traffic in response to user instructions (Figure 3, ***350***)

With respect to claim 37, Gerrevink discloses the simulated network traffic is generated by a stateless packet processor (Figure 1)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 27-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerrevink et al. (US 2003/0012141 A1), in view of Beanland (6,028,847).

With respect to independent claim 27, the limitations of this claim are similar to the limitations of claim 1. Therefore, claim 27 is rejected for the same reasons as claim 1 above. Please see rejection above.

In addition, Gerrevink does not explicitly disclose each interactive transaction includes receiving at least one packet from the system under test and sending at least one response packet in response to the received packet.

However, Beanland discloses each interactive transaction includes receiving at least one packet from the system under test and sending at least one response packet in response to the received packet (Col. 7, lines 56-67, *a handshaking protocol is used to establish a connection between the emulator and the equipment under test. The handshake protocol is well known in the art at the time of the invention to be used for transmission of a negotiation packet between devices which includes the connection parameters*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine the teachings of Gerrevink with the teachings of Beanland to include a request-response relationship between the testing device and the system under test, *because* it will allow for connection integrity between the devices.

With respect to claim 28, Gerrevink discloses the simulated network traffic is generated by a stateless packet processor (Figure 1)

With respect to claim 29, Gerrevink discloses the system under test comprises a stateful application which uses underlying services of TCP ([0031])

With respect to claim 30, Gerrevink discloses the system under test comprises an HTTP server ([0078])

With respect to claim 31, Gerrevink discloses the system under test comprises an FTP server ([0078])

With respect to claim 32, Gerrevink discloses using performance metrics based on the stateful TCP connections to modify the behavior of the simulated network traffic to more closely simulate a realistic mix of network traffic ([0031])

With respect to claim 33, Gerrevink discloses the performance metrics are selected from the group consisting of retransmission rate, fragmentation, packet sizes, and drop/reset rates ([0018])

With respect to claim 34, Gerrevink discloses a user using a control program to change the behavior of the simulated network traffic via a system interface ([0031], [0067], and [0075])

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esther Benoit whose telephone number is 571-270-3807. The examiner can normally be reached on Monday through Friday between 7:30 a.m and 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krista M. Zele can be reached on 571-272-7288 The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

E.B.
February 9, 2011

/Krista M. Zele/
Supervisory Patent Examiner, Art Unit 2453